

PATENT CLAIMS

1. A method for the removal of mercury from a dilute aqueous solution of sulphuric acid, **characterised in that** an aqueous solution of thiosulphate
5 alkali metal compound is fed into a solution of sulphuric acid with an acid content of 35 – 45 wt % and an Hg content of at least 1 g/l at a molar ratio corresponding to a maximum of one time the amount of mercury dissolved in the acid solution, so that the mercury reacts with the thiosulphate, precipitating the mercury that is in solution.
10
2. A method according to claim 1, **characterised in that** mercury is precipitated as mercury sulphide HgS.
3. A method according to claim 1, **characterised in that** the aqueous
15 solution of sulphuric acid contains chloride ions, so that the mercury is in solution as mercury chloride.
4. A method according to claim 3, **characterised in that** an aqueous solution of thiosulphate alkali metal compound is fed into a solution of
20 sulphuric acid at a molar ratio that corresponds to a maximum of 0.67 times the amount of mercury dissolved in the acidic solution.
5. A method according to claim 3, **characterised in that** in a chloride environment mercury is recovered as a double salt $2\text{HgS}\cdot\text{HgCl}_2$.
25
6. A method according to claim 1, **characterised in that** the thiosulphate alkali compound is sodium thiosulphate, $\text{Na}_2\text{S}_2\text{O}_3\cdot 5\text{H}_2\text{O}$.
7. A method according to claim 1, **characterised in that** the precipitated
30 mercury sediment is recovered by filtration.